

Woodville Canal Company  
West side of Snake River (River Mile 796)  
Woodville vicinity  
Bingham and Bonneville Counties  
Idaho

HAER No. ID-9

HAER  
ID,  
6-WOVI.V,  
1-

PHOTOGRAPHS  
WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record  
Western Region  
National Park Service  
Department of the Interior  
San Francisco, California 94102

HISTORIC AMERICAN ENGINEERING RECORD

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Woodville Canal Company

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Location: On the west side of the Snake River, beginning at the Woodville Canal Company dam between river mile 796 and 797 in Section 34, T2N, R37E, heading five miles southwesterly crossing Highway 15 near Woodville, and ending in Section 18, T1N, R37E Woodville vicinity, Bingham and Bonneville Counties, Idaho

UTM: 12.412020.4812250  
Quad: Woodville Dam

Date of Construction: 1891

Present Owner: Woodville Canal Company

Present Use: Irrigation

Significance: The Woodville Canal Company represents one of the few remaining small-scale canal companies operating in eastern Idaho that continues to be administered and managed by district farmers. The Woodville Canal was planned and constructed over a 5-year period, beginning in 1891, by area settlers near Woodville, Idaho. Construction of the diversion dam and canal provided a stable water supply to an area of semi-arid land and resulted in the agricultural development and settlement of the area.

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### EARLY HISTORY

The Woodville Canal Company was incorporated on June 14, 1891,<sup>1</sup> and holds a water right dating to 1893.<sup>2</sup> The canal company was formed by area settlers who resided near Woodville, Idaho. The original Woodville Canal (or Woodville Ditch) was constructed by interested farmers who pooled their resources and used horse teams and slip scrapers to construct a ditch that began on the west side of the Snake River at the Woodville dam in the SW 1/4 of Section 34, T1N, R37E, B.M. A coffer dam was built in the river at the head of the canal by blasting nearby rock and sledding the rock across the ice in the winter with horse teams and dropping it into place. (Figure 1 shows the canal alignment).<sup>3</sup> It took approximately 5 years to complete the ditch.<sup>3</sup> Originally, 3,000 acres were to be brought into irrigation by the Woodville Canal.<sup>4</sup>

The State Engineer's report for 1899-1900 noted: "The Woodville ditch,<sup>5</sup> near Idaho Falls, is 5 miles long and cost \$12,000.00."<sup>5</sup> The number of acres being irrigated were not noted. The report for 1901-1902<sup>6</sup> does provide a report of the district acreage:

<u>Canal</u>	<u>Length (Miles)</u>	<u>Width (Feet)</u>	<u>Flow (Second- Feet)</u>	<u>Number Acres Under District</u>	<u>Irrigated Acres</u>
Woodville	5	16	60	2,500	1,600

### Canal System Operation and Management

The canal system was unlined except for the addition of a few cement passages where substantial seepage occurred. Individual farmers maintained their own laterals off the canal.

The canal was owned by a pool of stockholders and initially there was no limit on the number of shares issued. The stockholders did not have to own land in the district; thus, some stock speculation occurred. Later shares were changed into inches to the acre, with one share equal to 7 inches.

The company was administered by a board of directors, who were elected annually by the stockholders. Prior to each irrigation season the Board of Directors traditionally walked

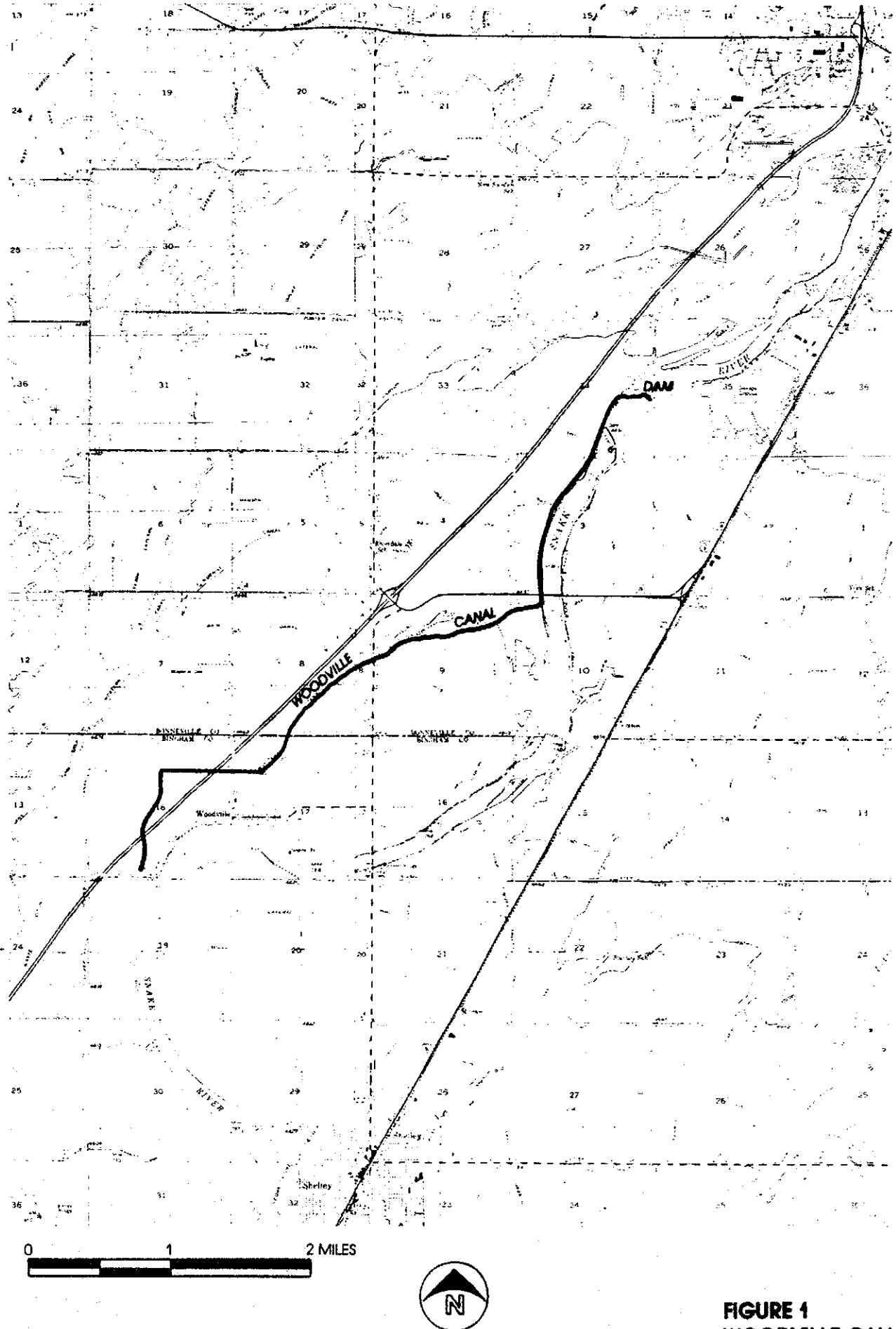


FIGURE 1  
WOODVILLE CANAL

the canal to determine the annual water assessment, which was based largely on maintenance costs.<sup>7</sup> Yearly canal system maintenance, repairs, and improvements included the removal of willows from the canal edge, putting in new headgates on laterals, adding rock and gravel to the diversion dam, taking out high places in the canal, and widening, grading, and cleaning the canal. The amount of maintenance, repair, and improvements varied year to year.

Canal improvements often meant widening the canal. In 1915 through 1916, canal widening was an ongoing process. At the March 7, 1916, meeting it was proposed "that the canal by all means should be enlarged all the way down.... [It was] moved that the incoming Board borrow enough money to cover all the debt now on the Canal Company and enough to complete the canal commencing where left off last fall at 20 feet wide and by degree coming down make it narrower according to the amount of water taken out."<sup>8</sup>

During each irrigation season a "ditch rider" was hired by advertising in the Shelley paper.<sup>9</sup> The ditch rider worked from April or May through November and was responsible for water allocations and canal monitoring and maintenance. The early ditch riders used a ruler in the canal at the headgates to the laterals for measuring water.

#### Woodville Branch Ditch

In May of 1915, a "branch ditch" was proposed by area farmers in and near the current alignment of Interstate 15 in Section 18, T1N, R37E. The Woodville Canal Company Board of Directors stipulated "that the owner in that ditch should make it not less than 6 foot (sic) on bottom and banks high enough to be at least 1 foot above water when the full amount of water owned in the ditch was there and banks having the slope of 1-1/2-foot to every foot in height and good gates put in not less than 12 foot long so [the] ditch rider can measure the water correctly, and banks on each side must be at least 3 foot wide on top, and must clean out waste ditch so as to carry surplus water."<sup>10</sup>

Consideration of inclusion of the branch ditch in the Woodville Canal Company continued from May 1915 to March 9, 1919, when the ditch was finally accepted.

With the construction of Interstate Highway 15 in the early 1960's, the ditch configuration was changed slightly. The highway department allocated \$14,000.00 for filling to maintain the canal on grade.

#### Shelley Power & Light Powerplant

On June 29, 1915, J.F. Shelley met with the Board to discuss putting a powerplant on the Woodville Canal where the waste ditch drops into the river (near the Woodville town site). Mr. Shelley was interested in getting a "right-of-way" to use surplus water when the district farmers were not using it for irrigation. It was decided that Mr. Shelley would pay the Company \$1,000.00 for repair work on the canal and \$100.00 in cash each year thereafter for a right to use the overflow water for power.<sup>11</sup> J.F. Shelley had completed his powerplant in the spring of 1916. A dam was constructed across the Woodville Canal to regulate the water supply for the powerplant in the spring of 1916. At the May 21 Board meeting, the board president was instructed to notify J.F. Shelley to put proper gates and locks at the head of his power canal. On November 10, 1916, a meeting was held with J.F. Shelley and a contract signed to maintain a flow of winter water through the canal, with Shelley being responsible for canal maintenance.

#### Woodville Canal Company Dam

A simple coffer dam was located at the head of the canal in Section 3, T1N, R37E for diverting water from the Snake River into the Woodville canal. Yearly maintenance was necessary to repair and maintain the dam. In December 1916, after several years of work and expense to stabilize the Woodville Canal Company's diversion dam, the dam was blown out with dynamite. Damage to the dam included approximately 250 lineal feet of the dam from 5 to 7 feet below the original crest.<sup>12</sup> The functional loss of the dam had an impact not only on the Woodville canal company but also on the town of Shelley, which was dependent on J.F. Shelley's powerplant on the canal for electricity. The Utah Power and Light Company was contacted after the incident and agreed to provide electricity as needed to area customers until the Shelley Power and Light Company could again provide service to its customers.

An investigation was begun immediately to identify the individuals responsible for the damage to the dam. At the January 19, 1917, board meeting it was reported that "J.C. Wilson

had caught three men shooting [dynamiting] ice out of the river and placing shots directly on the dam. These men were employed by the Utah Power and Light Co."<sup>13</sup> A lawyer was hired and a suit filed against the Utah Power and Light Company.

Funding for repair to the dam was provided by J.F. Shelley who agreed to pay for half the cost of repair to the dam and to loan the Canal Company their part of the repair cost at 7 percent interest, the interest to be applied to the yearly payment the Shelley Power and Light Company paid to the Canal Company.<sup>14</sup>

Plans for rebuilding the structure were immediately proposed, but construction was hampered by severe weather. The Shelley Pioneer noted on February 16, 1917: "Work on the Woodville Canal dam, that was blown out some time ago, is being pushed as fast as the weather will permit and will soon be completed. A force of 25 men have been working on the project. They have decided to camp at the dam to save time on traveling the distance back and forth."<sup>15</sup>

The Woodville dam continued to be a major maintenance problem for the company. In 1922, after Utah Power and Light Company had purchased the Shelley Power and Light Company powerplant and water rights on the Woodville Canal Company canal, they became involved in dam maintenance and repair costs. In December 1922, Utah Power and Light Company agreed to provide \$1,430.00 to repair a break in the dam.

In July 1929, a bid of \$1,677.15 was accepted from Mr. Hall to repair breaks in the dam east and west of the island. "The construction was to be of a heavy wood crib filled with rock."<sup>16</sup> Bids were also considered in July for construction of a concrete dam at the head of the Woodville Canal.

E. Milton Christensen was to do all engineering work on the dam and oversee construction. A bid was accepted and withdrawn and a contract with the second bidder could not be entered into because the contractor could not put up bond to cover construction costs. Mr. Christensen did present an engineering design that was accepted by the board. The design was for an "18-inch top, with a vertical front face, 2 inches to the foot back slope, and 16-inch buttresses (sic) every 16 ft apart, with 50 lbs of steel to each cubic yard of concrete."<sup>17</sup>

Bids were again solicited for construction of a concrete dam from the canal headgates to the large island in the river. The only proposal received by March 1930 was a proposal from a Mr. Davis to do the work through a "force account" or the Works Project Administration (WPA). At the following meeting on March 12, construction problems were discussed and it was decided to begin construction immediately after high water. The dam was in place by the following March and discussion was held as to the "advisability of cutting the ice loose or cutting a channel above the dam so that the ice would not tear the dam loose in breaking up."<sup>18</sup> Ice damage to the previous dam was a periodic winter problem.

The dam required very little maintenance until the mid 1950's. On October 2, 1955, "Mr. Olson agreed to a contract price of \$3,645.00 to build a heavy gravel fill up to the top of the concrete work and 6 to 8 feet wide to a point approximately 30 feet from the end of the cement work on the dam...to clean cross steel and cement cap all places on the dam where the cement work has been broken."<sup>19</sup> The work was to begin immediately and to be finished by the end of October 1955. He used a dragline, two trucks and a bulldozer for the repair work.

In 1962, the diversion dam was improved by building up the part of the dam east of the islands, so water could be more effectively diverted when the river was low. The regulation of the Snake River by the Palisades reservoir upstream resulted in low flows on a regular basis.

#### Current Management and Operation

Currently the Woodville Canal Company continues to operate much as it did historically through the management of an annually elected board of directors, and a seasonal contract for a ditch rider. The ditch rider is responsible for water allocation and canal maintenance and repairs. In the 1970's a procedure was established to assess stockholders on acres irrigated rather than shares of stock they owned.

Today the main canal is 5 miles long and 58 to 60 feet wide at the canal rim, with an average depth of 4 to 5 feet. About 180 farms are included in the district today, the primary crops being potatoes, alfalfa, and forage. Pasture land is also irrigated.



The Woodville dam and the canal in Section 34, T2N, R37E and Sections 3 and 10, T1N, R37E will be inundated by the Gem State Hydroelectric Project. The attached figures (Sheets 1 through 7) show the portions of the Woodville Canal that will be inundated. Canal features, besides the dam, located in the project area are the canal intake (photos 3 through 5), approximately 2 miles of unlined canal and a waste gate (photos 7 and 8). A new canal intake will be constructed as part of the Gem State Hydroelectric project to assure continued operation of the remainder of the Woodville Canal Company system.

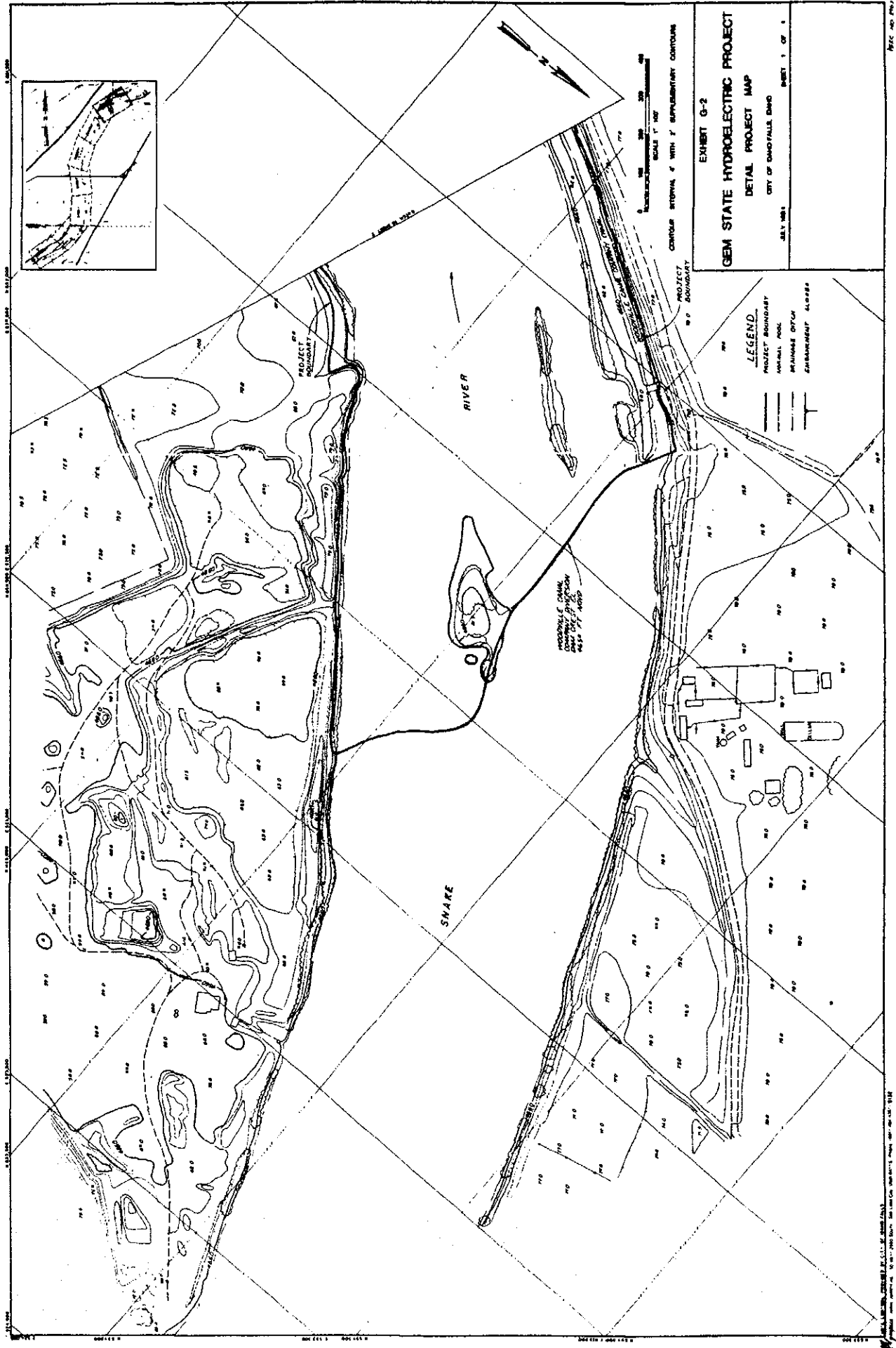
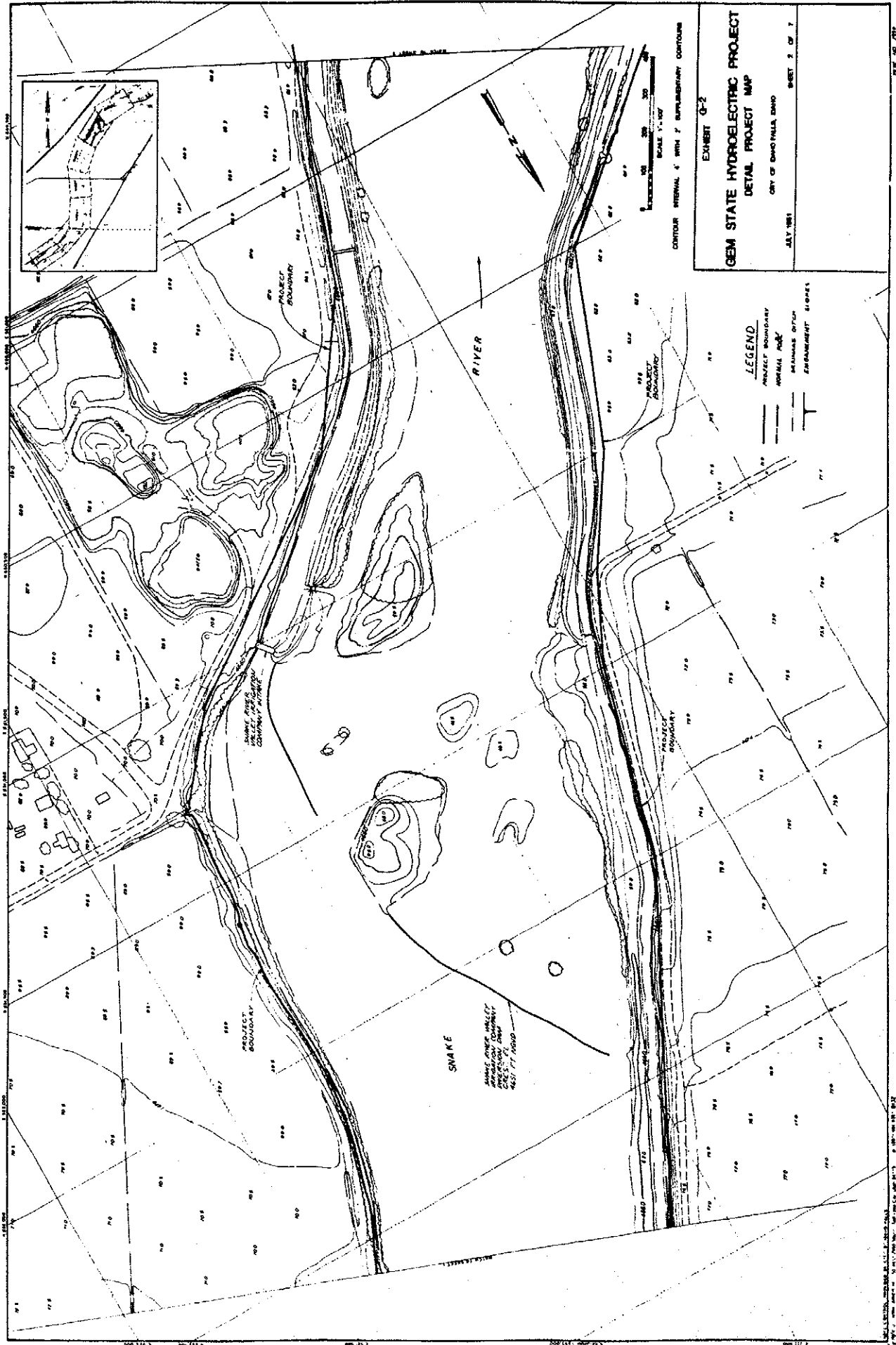
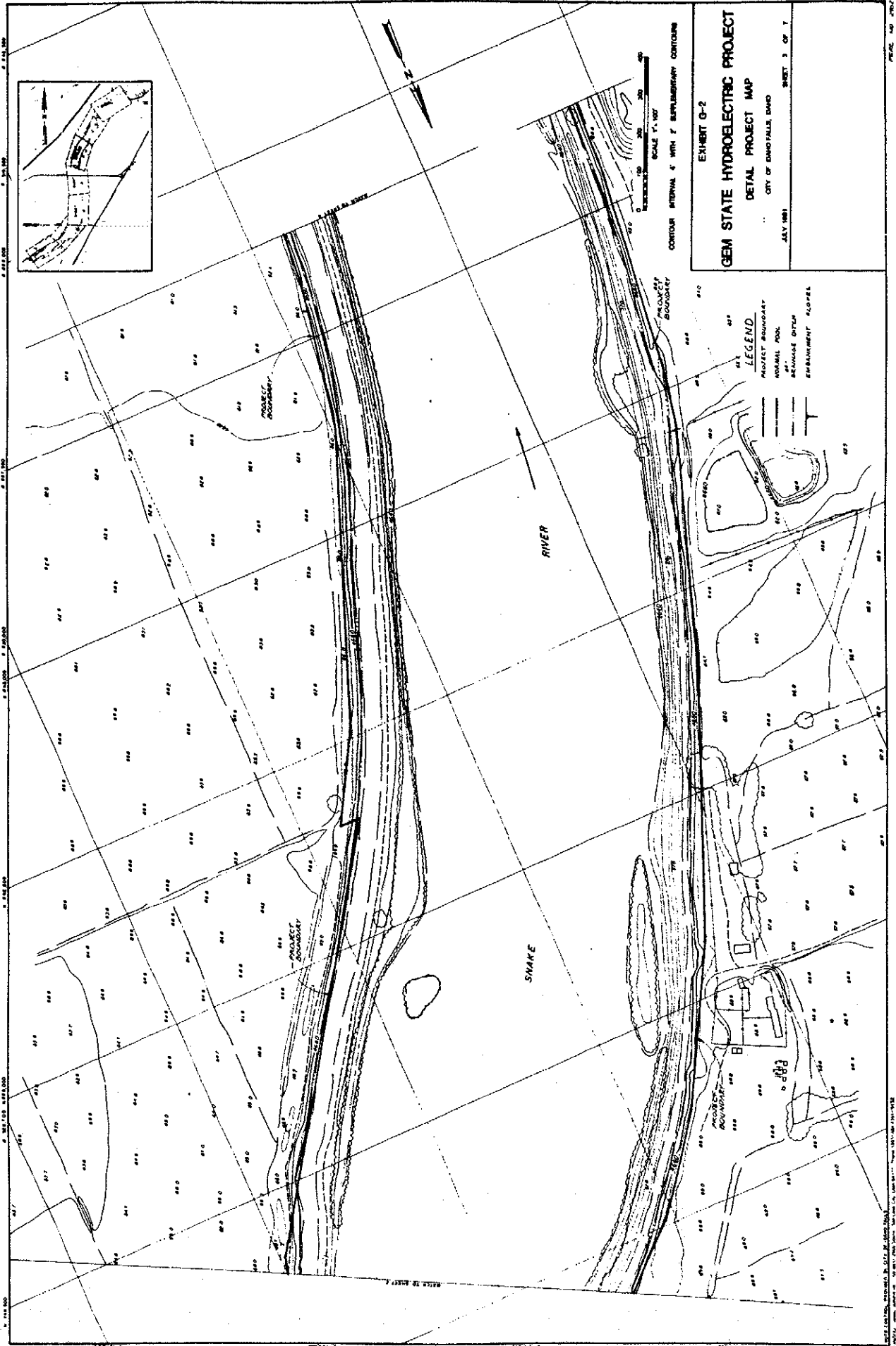


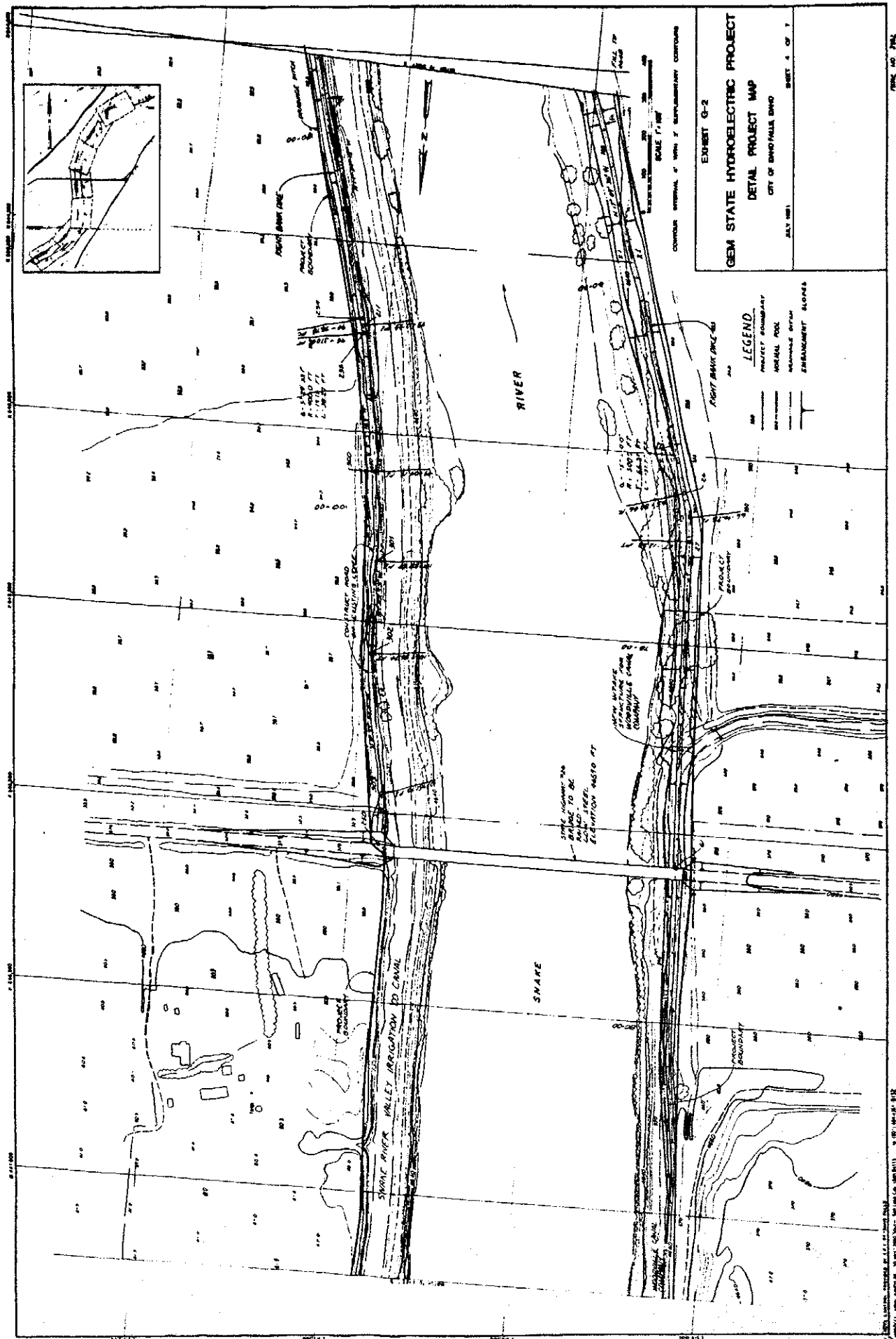
EXHIBIT G-2  
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DETAIL PROJECT MAP  
CITY OF OMAHA, IOWA  
JULY 1961  
SHEET 1 OF 1

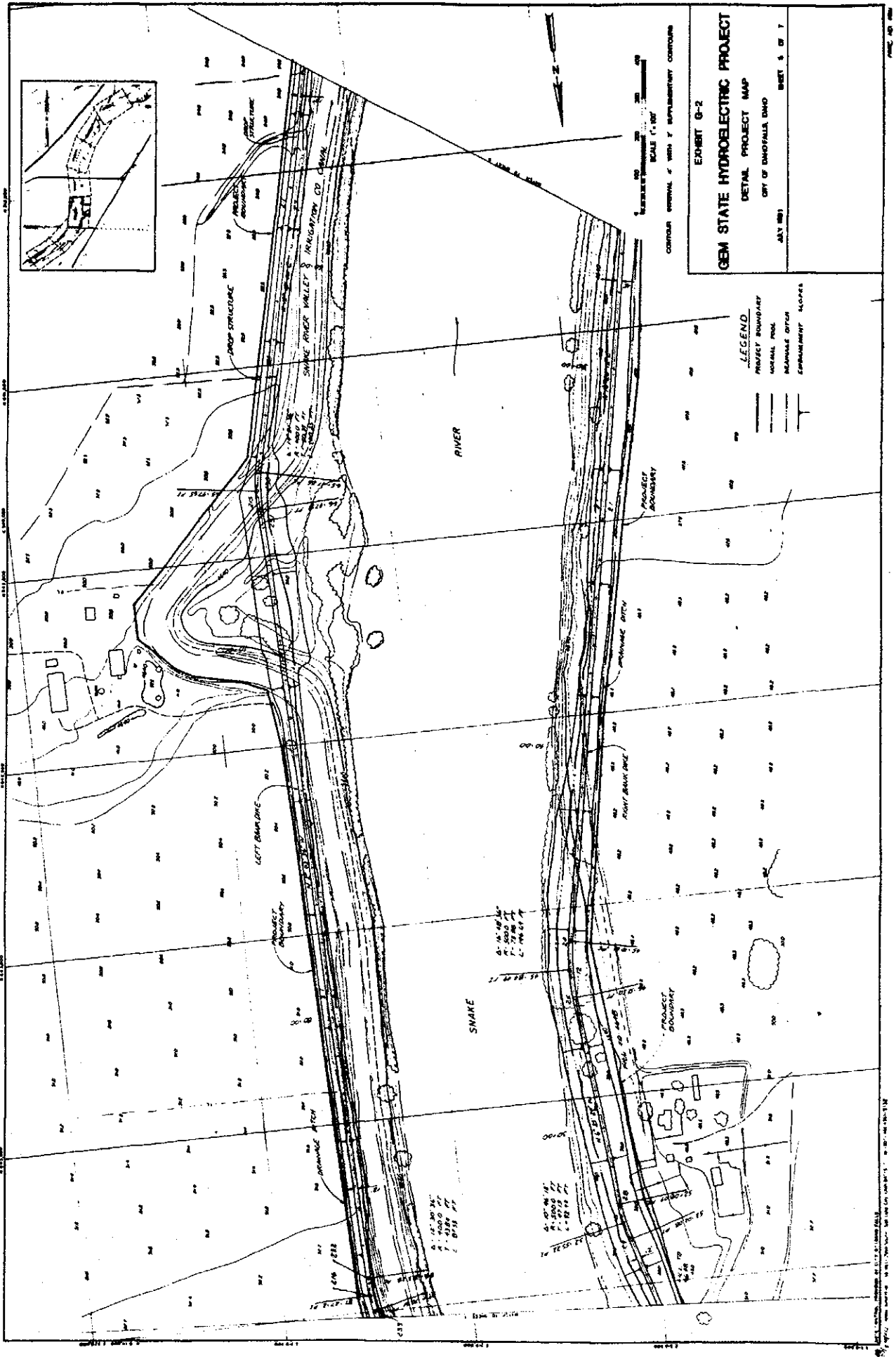
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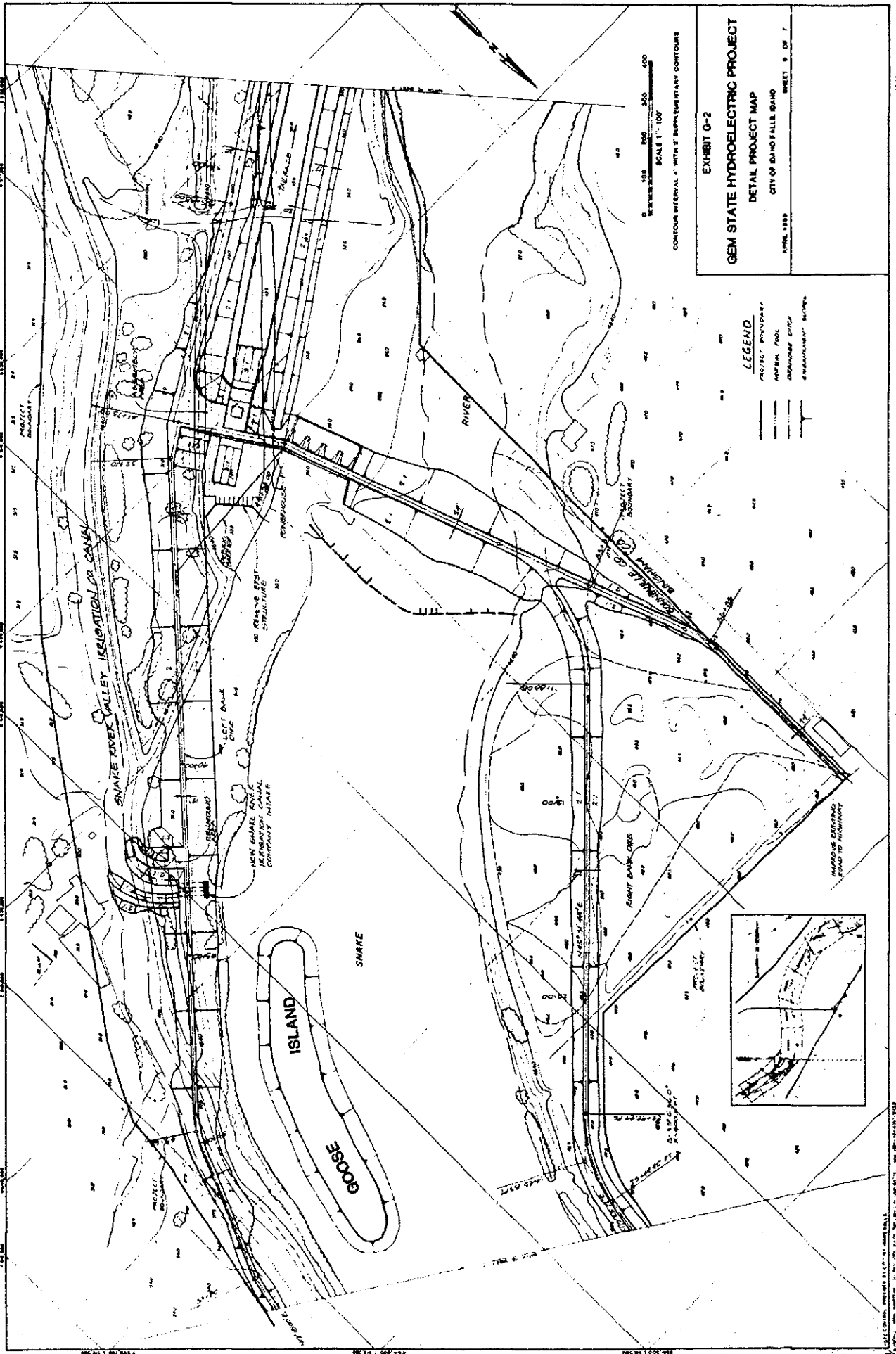
WOODVILLE CANAL COMPANY, 1000 N. 10TH ST., OMAHA, NEB. 68102

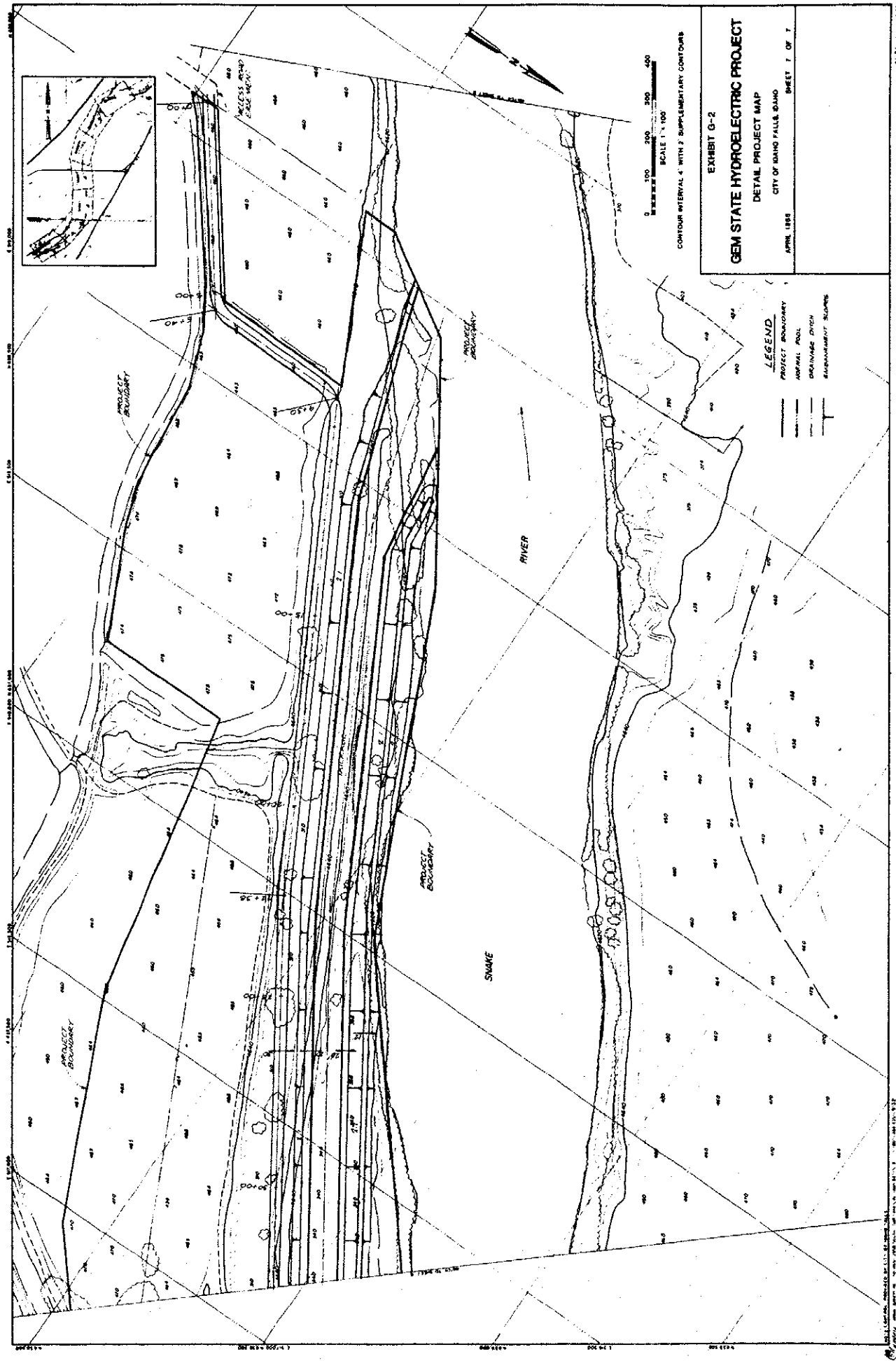














ENDNOTES

1. The Bylaws and Rules and Regulations of the Woodville Canal Company (On file with the Secretary of the Woodville Canal Company).
2. Work Projects Administration, Historical Sketch of Bingham County, Idaho (Boise, Idaho: Idaho Historical Records Survey Project, 1942), p. 7.
3. Edith Haroldsen Lovell, "Captain Bonnevilles County," The Eastern Idaho Farmer, Idaho Falls, Idaho, 1963, p. 243.
4. Gibbson Davies, interview about the Woodville Canal Company, Woodville, Idaho, November 14, 1985.
5. Idaho State, Biennial Report of the State Engineer to the Governor of Idaho for the Years 1899-1900 (Boise, Idaho: Capital Printing Office), p. 23.
6. Idaho State, Biennial Report of the State Engineer to the Governor of Idaho for the Years 1901-1902. (Boise, Idaho: Statesmen Print), p 61.
7. Davies, interview.
8. Woodville Canal Company, Minutes of the Annual Stockholders Meeting--March 7, 1916 (On file Woodville Canal Company), p. 2.
9. Mrs. Rumsey, interview about the Woodville Canal Company, Woodville, Idaho, November 14, 1985.
10. Woodville Canal Company, Minutes of the Board Meeting--May 19, 1915 (On file Woodville Canal Company), p. 1.
11. Woodville Canal Company, Minutes of the Board Meeting--June 29, 1915 (On file Woodville Canal Company).
12. "Irrigation-Prohibition-Dams-Electricity" (Historic Clippings on Irrigation on file at the Shelley Library, Shelley, Idaho), p. 5.
13. Woodville Canal Company, Minutes of the Board Meeting--January 19, 1917, (On file Woodville Canal Company), pp. 1-2.

14. Woodville Canal Company, Minutes of the Board Meeting--  
February 4, 1917, (On file Woodville Canal Company),  
p. 2.
15. Shelley Pioneer, 16 February 1917 (Clippings on file  
under "Irrigation Systems" at the Shelley Library,  
Shelley, Idaho).
16. Woodville Canal Company, Minutes of the Board Meeting--  
July 20, 1929, (On file Woodville Canal Company).
17. Woodville Canal Company, Minutes of the Board Meeting--  
September 30, 1929 (On file Woodville Canal Company).
18. Woodville Canal Company, Minutes of the Annual Stock-  
holders Meeting--March 10, 1931 (On file Woodville Canal  
Company), p. 1.
19. Woodville Canal Company, Minutes of the Board Meeting--  
October 2, 1955 (On file Woodville Canal Company).